

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P299447

Luminaire Tested: **GLNA-AF-09-LED-E1-5NQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-5NQ-7050-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44193.6 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

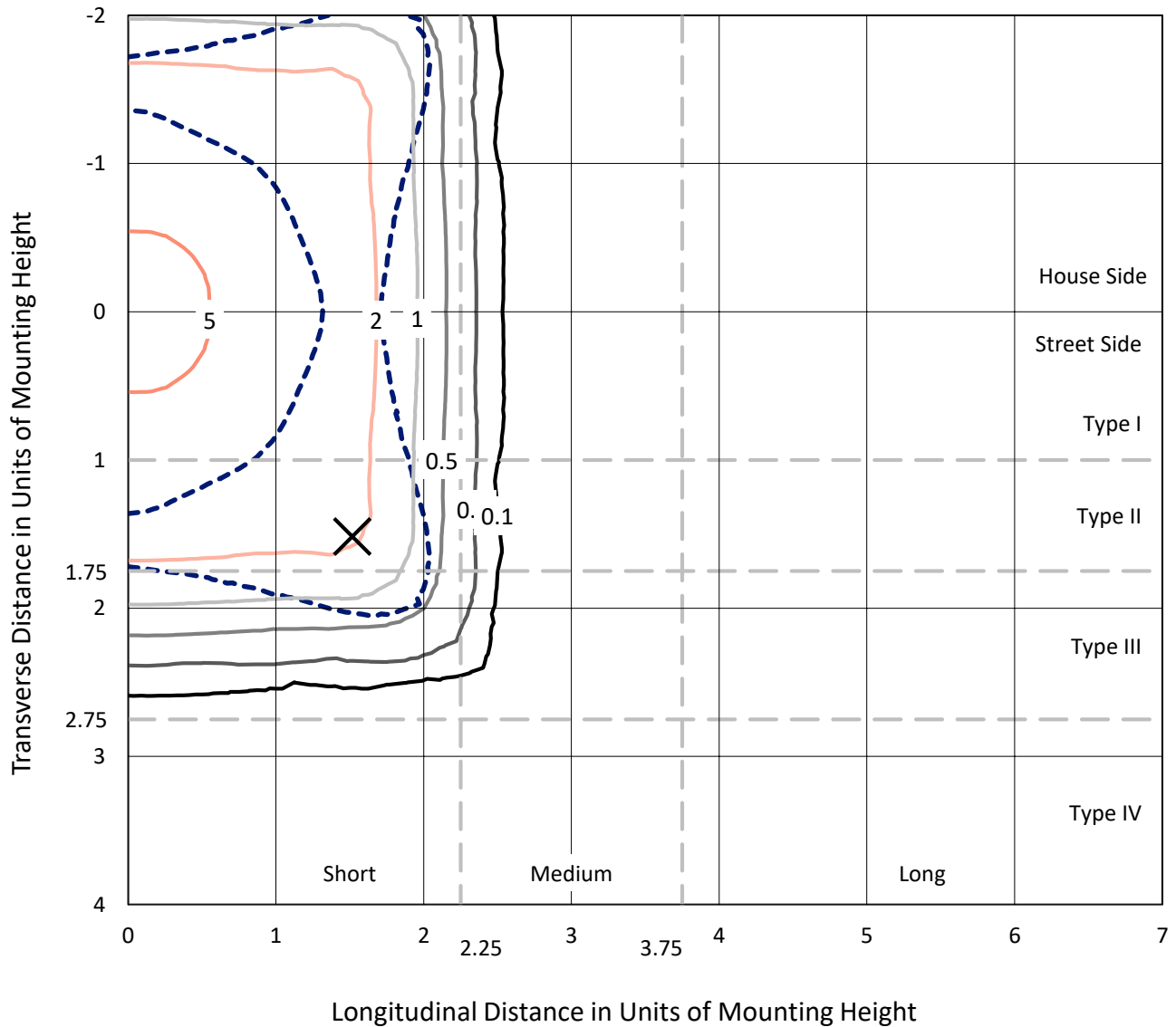


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

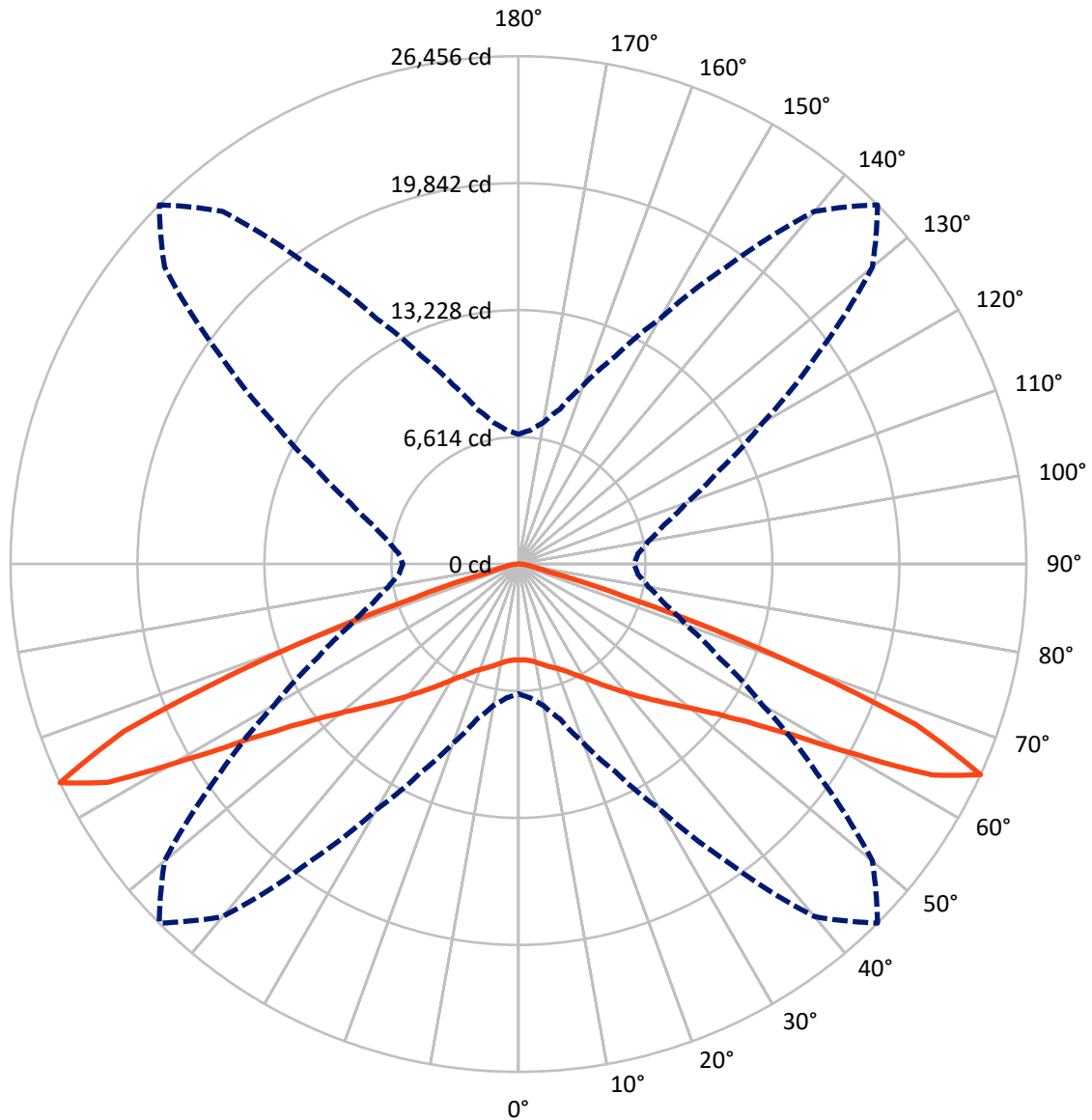


Based on 30 foot mounting height. Maximum calculated value = 5.6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	22096.8	0.0	22096.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	22096.8	0.0	22096.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	44193.6	0.0	44193.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	487.4	1.1
10°-20°	1563.1	3.5
20°-30°	2922.8	6.6
30°-40°	4943.3	11.2
40°-50°	8082.8	18.3
50°-60°	12852.8	29.1
60°-70°	11618.1	26.3
70°-80°	1470.3	3.3
80°-90°	252.9	0.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	44193.6	100.0
0°-180°	44193.6	100.0



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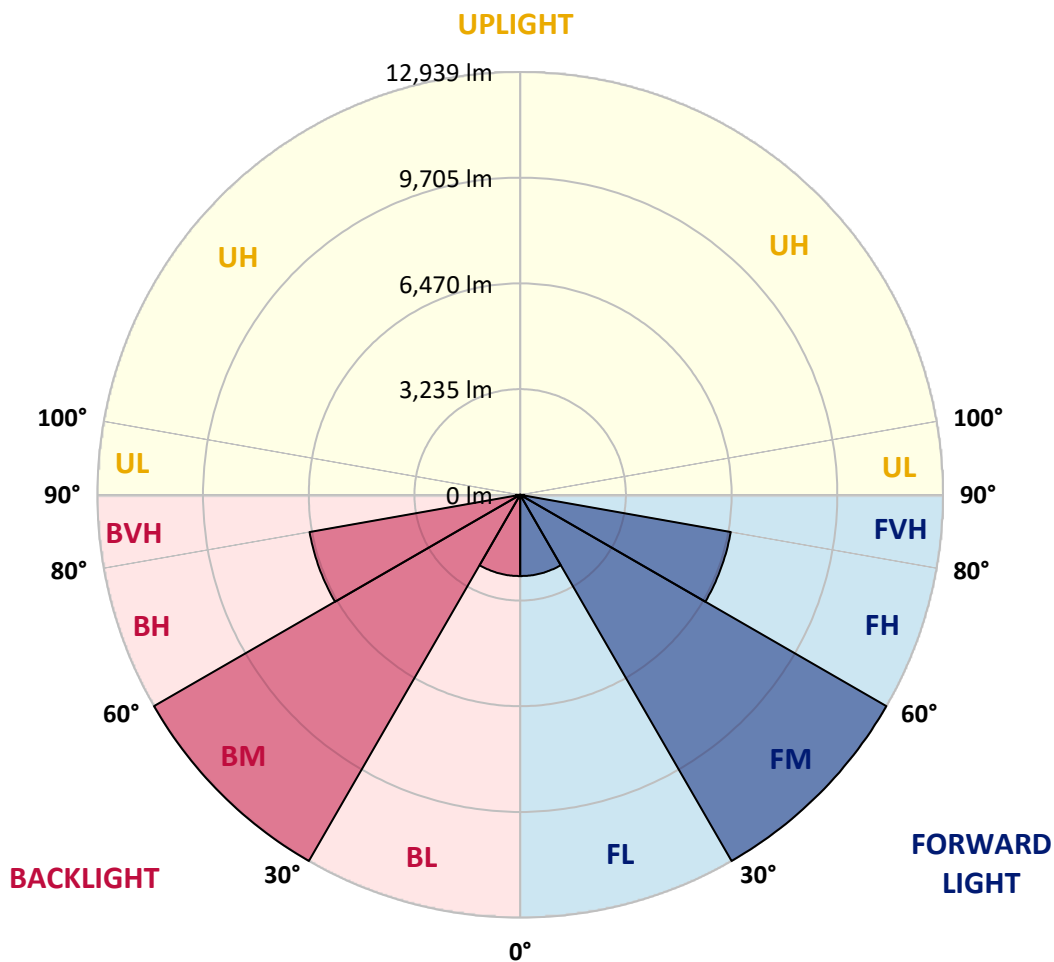
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2486.7	5.6			
FM	(30°-60°)	12939.4	29.3			
FH	(60°-80°)	6544.2	14.8			G3/7500
FVH	(80°-90°)	126.5	0.3			G2/225
BL	(0°-30°)	2486.7	5.6	B3/2500		
BM	(30°-60°)	12939.4	29.3	B5		
BH	(60°-80°)	6544.2	14.8	B5		G3/7500
BVH	(80°-90°)	126.5	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5
2.5°	5004.7	5008.8	5012.9	5008.8	5012.9	5006.7	5002.6	5008.8	5002.6	4996.4	5000.5
5°	5048.1	5050.2	5050.2	5044.0	5050.2	5046.1	5039.9	5048.1	5041.9	5035.7	5039.9
7.5°	5120.6	5128.9	5122.6	5116.4	5120.6	5116.4	5112.3	5114.4	5112.3	5106.1	5108.2
10°	5217.8	5224.1	5219.9	5217.8	5222.0	5219.9	5215.8	5213.7	5215.8	5209.6	5209.6
12.5°	5335.8	5333.8	5331.7	5333.8	5340.0	5340.0	5337.9	5340.0	5344.1	5346.2	5342.0
15°	5451.7	5455.9	5455.9	5455.9	5468.3	5478.6	5484.8	5489.0	5497.3	5499.3	5491.1
17.5°	5596.6	5596.6	5594.5	5596.6	5609.0	5625.6	5631.8	5640.1	5648.4	5654.6	5644.2
20°	5758.1	5762.2	5762.2	5766.3	5782.9	5801.5	5801.5	5805.7	5801.5	5805.7	5799.5
22.5°	5954.7	5967.1	5967.1	5969.2	5985.7	6008.5	6002.3	6008.5	5998.1	6006.4	5998.1
25°	6211.3	6230.0	6225.8	6225.8	6238.2	6252.7	6254.8	6267.2	6265.1	6275.5	6269.3
27.5°	6501.1	6530.1	6538.4	6536.3	6544.6	6559.1	6563.2	6577.7	6569.4	6577.7	6573.5
30°	6848.8	6861.2	6877.8	6884.0	6894.4	6908.8	6908.8	6910.9	6900.6	6913.0	6919.2
32.5°	7209.0	7231.7	7248.3	7285.5	7304.2	7314.5	7312.4	7316.6	7306.2	7322.8	7335.2
35°	7685.0	7701.6	7728.5	7757.4	7782.3	7780.2	7774.0	7776.1	7776.1	7790.6	7803.0
37.5°	8258.3	8262.5	8297.6	8339.0	8351.5	8339.0	8301.8	8293.5	8274.9	8293.5	8314.2
40°	8864.8	8879.2	8949.6	8976.5	8982.7	8960.0	8906.2	8875.1	8833.7	8856.5	8885.5
42.5°	9500.2	9529.1	9593.3	9640.9	9661.6	9647.1	9572.6	9525.0	9471.2	9483.6	9512.6
45°	10203.9	10239.1	10330.1	10375.7	10415.0	10392.2	10319.8	10247.4	10162.5	10168.7	10214.2
47.5°	10990.4	11025.6	11143.6	11220.1	11240.8	11236.7	11156.0	11056.6	10940.7	10936.6	10975.9
50°	11872.1	11907.3	12054.2	12172.2	12232.2	12226.0	12130.8	11990.1	11849.3	11851.4	11901.1
52.5°	12733.1	12776.6	12929.8	13132.6	13250.6	13335.4	13277.5	13145.0	12973.2	12977.4	13022.9
55°	13540.3	13612.8	13788.7	14064.0	14283.4	14521.4	14589.7	14585.6	14482.1	14511.0	14556.6
57.5°	13931.5	14039.1	14310.3	14744.9	15192.0	15676.3	16086.1	16392.5	16522.8	16719.5	16673.9
60°	13190.5	13362.3	13761.8	14401.3	15285.1	16295.2	17377.7	18435.3	19337.7	20018.7	19627.5
62.5°	10800.0	11023.5	11507.8	12327.5	13664.5	15281.0	17352.8	19853.1	22576.9	24220.3	23046.7
65°	6757.7	6989.6	7482.2	8359.7	9924.5	11934.2	14744.9	18888.6	23978.1	26455.6	24067.1
67.5°	2634.8	2761.1	3028.1	3589.0	4764.6	6552.8	9373.9	14076.4	20163.5	22334.7	19788.9
70°	1320.5	1332.9	1382.6	1486.1	1738.6	2258.1	3435.8	6525.9	11563.7	13966.7	11147.7
72.5°	954.2	956.2	981.1	1026.6	1107.3	1223.2	1446.8	1997.3	3760.7	5747.7	3524.8
75°	730.6	738.9	753.4	778.2	821.7	879.6	960.4	1150.8	1426.1	1653.7	1390.9
77.5°	563.0	579.5	589.9	612.6	639.6	678.9	701.6	774.1	900.3	947.9	933.5
80°	428.4	442.9	465.7	484.3	503.0	521.6	513.3	546.4	612.6	652.0	631.3
82.5°	273.2	289.8	356.0	372.6	380.8	393.3	378.8	380.8	409.8	434.6	409.8
85°	175.9	186.3	225.6	246.3	248.4	256.6	250.4	236.0	236.0	215.3	242.2
87.5°	80.7	82.8	101.4	120.0	124.2	111.8	109.7	105.6	84.9	80.7	86.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5	5000.5
2.5°	4998.5	5002.6	5004.7	5010.9	5012.9	5012.9	5015.0	5019.2
5°	5037.8	5044.0	5046.1	5054.3	5056.4	5054.3	5058.5	5060.5
7.5°	5108.2	5118.5	5122.6	5130.9	5124.7	5133.0	5135.1	5135.1
10°	5211.6	5222.0	5224.1	5232.3	5228.2	5232.3	5232.3	5228.2
12.5°	5348.2	5350.3	5344.1	5350.3	5342.0	5346.2	5340.0	5335.8
15°	5499.3	5493.1	5478.6	5478.6	5466.2	5468.3	5466.2	5464.2
17.5°	5646.3	5633.9	5623.5	5619.4	5609.0	5607.0	5600.8	5600.8
20°	5807.7	5801.5	5795.3	5787.0	5776.7	5766.3	5764.3	5768.4
22.5°	6002.3	6000.2	6000.2	5996.1	5981.6	5971.2	5965.0	5965.0
25°	6263.1	6244.4	6244.4	6242.4	6236.2	6230.0	6217.5	6223.8
27.5°	6557.0	6546.6	6554.9	6552.8	6546.6	6546.6	6538.4	6538.4
30°	6919.2	6915.0	6927.5	6917.1	6896.4	6894.4	6886.1	6875.7
32.5°	7337.3	7333.1	7351.8	7339.3	7306.2	7287.6	7271.0	7262.8
35°	7803.0	7805.0	7827.8	7819.5	7782.3	7769.9	7740.9	7736.7
37.5°	8312.1	8345.2	8384.6	8392.9	8361.8	8353.5	8322.5	8305.9
40°	8910.3	8953.8	9013.8	9028.3	8995.2	8988.9	8945.5	8922.7
42.5°	9547.8	9622.3	9696.8	9709.2	9676.1	9643.0	9601.6	9585.0
45°	10259.8	10348.8	10446.0	10470.9	10421.2	10381.9	10328.1	10328.1
47.5°	11058.7	11170.5	11280.2	11348.5	11302.9	11261.5	11197.4	11156.0
50°	12002.5	12155.7	12298.5	12368.8	12296.4	12217.8	12106.0	12068.7
52.5°	13186.4	13352.0	13476.2	13438.9	13327.1	13217.4	13095.3	13045.7
55°	14697.3	14753.2	14753.2	14612.5	14388.9	14204.7	14012.2	13948.1
57.5°	16587.0	16371.8	16040.6	15620.4	15092.6	14633.2	14322.7	14175.7
60°	18807.9	17773.0	16603.6	15454.9	14511.0	13732.8	13271.3	13060.1
62.5°	20287.7	17580.5	15237.5	13393.4	12035.6	11098.0	10460.5	10212.2
65°	18961.0	14662.1	11524.4	9318.0	7838.2	6884.0	6252.7	6020.9
67.5°	13888.0	9187.6	6136.8	4398.2	3222.6	2570.6	2311.9	2204.3
70°	6234.1	3235.0	1982.8	1548.2	1335.0	1225.3	1177.7	1161.1
72.5°	1879.3	1359.8	1146.6	1034.9	950.0	896.2	856.9	852.7
75°	1134.2	943.8	838.3	772.0	718.2	674.7	654.0	647.8
77.5°	792.7	693.4	643.7	596.1	554.7	521.6	503.0	488.5
80°	556.8	509.2	486.4	459.5	432.6	401.5	374.6	362.2
82.5°	372.6	362.2	362.2	345.6	322.9	293.9	240.1	227.7
85°	240.1	238.0	242.2	236.0	219.4	188.3	155.2	147.0
87.5°	111.8	113.8	126.3	124.2	120.0	99.3	78.7	74.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)